

THE

Romance of Jute.

By JAMES H. BURNES.

OAK ST. HDSF



LIBRARY
OF THE
UNIVERSITY
OF ILLINOIS

677

W15r


The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

DEC 05 2006



Digitized by the Internet Archive
in 2017 with funding from
University of Illinois Urbana-Champaign Alternates

THE
ROMANCE OF JUTE.

**A Short History of the Calcutta Jute Mill
Industry 1855—1909.**

BY
D. R. WALLACE.

Reprinted from the "Empire Evening News," Calcutta.

CALCUTTA.

**Printed by the "Empire" Press 12a, Mission Row,
1909.**

To
MY FRIEND
MR. SHIRLEY TREMEARNE.

Editor and Proprietor of "Capital," and
Chairman and Director of many Jute Mill
Companies, whose connection with the indus-
try dates back to the early Seventies of the
last century, and whose trenchant and busi-
ness-like criticism of Jute Mill management
at a time when such was needed, tended to
impart the healthy tone which now generally
exists throughout the industry.

CALCUTTA,
December 1909. }

D. R. WALLACE.

Erratum.—Group page 20, for H. Knowles, read Thomas
Duff.

Received of the Treasurer of the
City of New York the sum of \$100.00
for the purchase of the City of New York
the sum of \$100.00

677
W1572

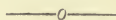
INDEX.

CHAPTER.	PAGE.
I. The Native Industry before the Mills ...	7
II. The Pioneer Spinning Mill ...	12
Barnagore Mill and the Power loom ...	17
III. Pioneer European Overseers. ...	20
Mills erected between 1860/70 ...	23
First steps into Foreign Markets ...	25
Jute prices, etc. ...	25
IV. New Mills and New Markets 1871/5 ...	27
First Electric Light introduced ...	37
V. New Mills erected 1876/85 ...	38
Origin of the Jute Mills Association ...	40
Progress in foreign Markets ...	41
Expansion of Hessian Output ...	42
First concerted shorttime ...	43
First minimum scale selling rates ...	44
Origin of the Gunny Brokers' Association ...	45
VI. Latter day Prosperity ...	46
Electric light ...	46
North American Markets & Dundee opposition	47
Enormous expansions since 1895 ...	48
Tacit agreement, Wheat Pockets ...	50
Early closing on Saturdays ...	50
Short time ...	50
Effect of the Plague on labor ...	51
Another minimum selling prices agreement ...	52
VII. Statistics and list of Mills, etc. ...	55
Jute crop acreage ...	62
New Factories Bill ...	63

8 June 48 TALMADGE

Added to Dundee Roll 12 May 48 Charles

ILLUSTRATIONS.



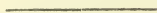
BEFORE THE MILLS.

			PAGE.
1.	Native hand spinning	...	8
2.	„ loom	...	9



IN A MODERN MILL.

1.	Selecting Batching, etc.	...	36
2.	Breaker Cards	...	38
3.	Finisher Cards	...	38
4.	Drawing Frames	...	40
5.	Roving Frames	...	42
6.	Spinning Frames	...	44
7.	General view Preparing and Spinning.	...	46
8.	Warp Winding Frames	...	48
9.	„ Beaming Machines	...	50
10.	Weft, Cop Machines	...	52
11.	Looms...	...	53



“ Earl of Clare ”—Sailing ship	...	18
Barnagore Staff 1862	...	20
Howrah Mill Staff 1907.	...	21
Manager and Assistants' Quarters	...	55
Map of the Hooghly showing the Jute Mills	...	67

PREFACE

A little more than seventy years ago Dundee flax and hemp spinners used to guarantee their products "free from Indian jute." Then, in 1838, the value of jute yarn was discovered and the Dundee jute industry was born. Seventeen years later, in 1855, the first spinning machinery was brought out to Calcutta from Dundee, the first mill was established, on land once owned by Warren Hastings, and the first machine-spun jute yarns produced. Eight tons a day was the product in the beginning. It is now 2,500 tons a day, or more than three times the produce of the parent in Dundee. In the place of that one mill there are to-day 38 companies, with over 30,000 looms and 675,000 spindles. In 1850-51 the value of jute to India, as represented by the exports of the raw and (native) manufactured material was a little over forty-one lakhs. In 1908-09 the value was thirty-one and a half crores of rupees, very nearly half the total value of the merchandise

exported from Bengal. Such has been the growth of the jute industry of Calcutta within the space of fifty odd years, and India owes an incalculable debt to the energy, enterprise and ability of those men who, since the days of Acland the pioneer, have built up this industry out of the native resources of Bengal, to the profit and honour of India and of themselves. The story of the birth and growth of the industry, which forms an important chapter in the romantic history of Indian commerce, is set forth in the following articles, which recently appeared in the Calcutta Evening paper, the "Empire."

CHAPTER I.

As it was in the beginning.

In the first quarter of last century the spinning and weaving of jute by hand was extensively practised by the natives of India for cordage, and cloth for bedding, screens, garments of the poorer classes and many other domestic purposes. This hand industry was then as it is still, though on a smaller scale, almost wholly confined to Bengal. In the early forties the cloth came to be exported from Calcutta to North America and the Bombay coast for cotton packing but more extensively as bags for exporting sugar and other produce to all parts of the world.

Dr. Forbes Royle in his admirable work "Fibrous Plants of India" pub-

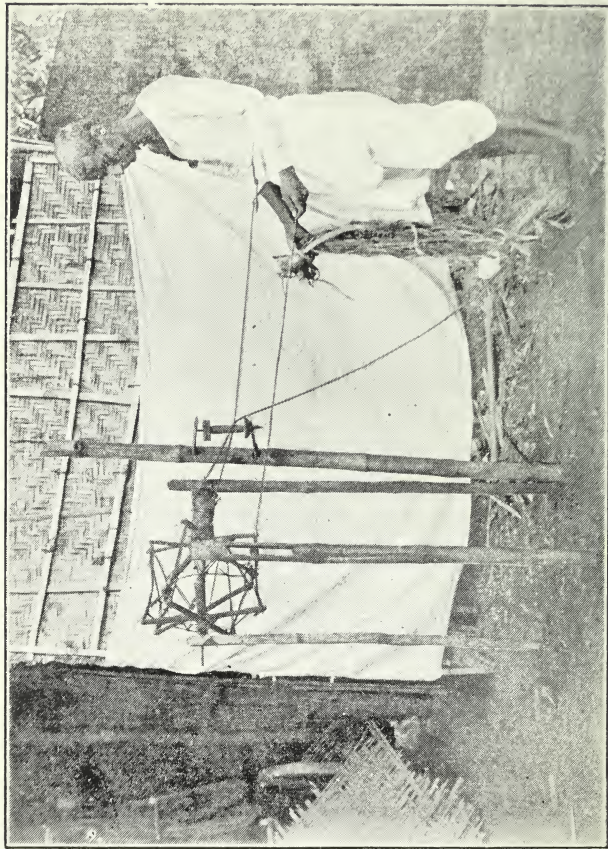
lished in 1855, quotes from a Calcutta merchant named Henley, the following vivid picture of the native industry and the importance it had then acquired in supplying markets outside of India with hand-loom gunny cloth and bags:—

“The great trade and principal employment of jute is for the manufacture of gunny chuts or chuttees, i.e., lengths suitable for making bags. This industry forms the grand domestic manufacture of all the populous eastern districts of Lower Bengal. It pervades all classes, and penetrates into every household. Men, women, and children find occupation therein. Boatmen in their spare moments, husbandmen, palankeen-carriers and domestic servants; everybody in fact, being Hindus—for Mussulmans spin cotton only—pass their leisure moments, distaff in hand, spinning gunny twist.

“Its preparation together with the weaving into lengths, forms the never-

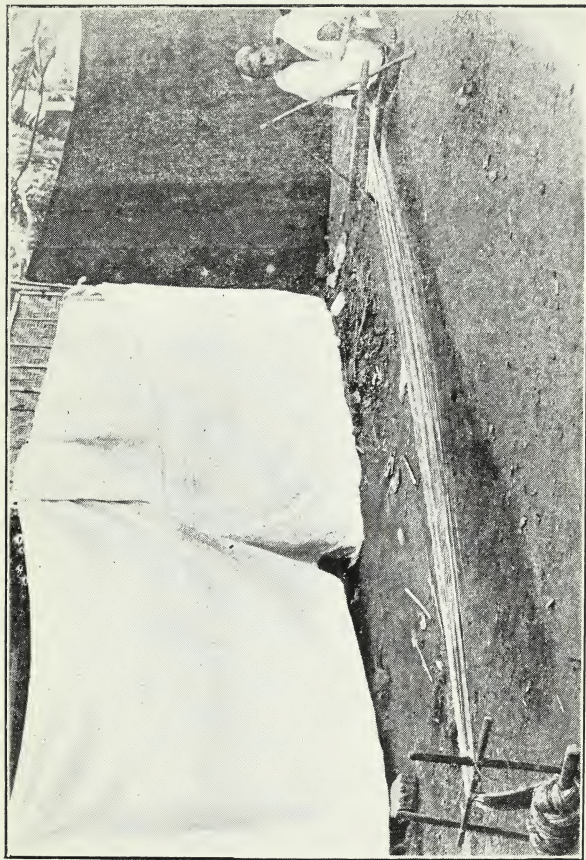
REMOTE STORAGE

Before the Mills.



1. NATIVE-HAND SPINNING.

Before the Mills.



2. NATIVE LOOM.

failing resource of that most humble, patient and despised of created beings, the Hindoo widow, saved by law from the pyre, but condemned by opinion and custom for the remainder of her days, literally to sackcloth and ashes, and the lowest domestic drudgery in the very household where once, perhaps, her will was law. This manufacture spares her from being a charge on her family—she can always earn her bread. Amongst these causes will be discerned the very low prices at which gunny manufactures are produced in Bengal, and which have attracted the demand of the whole commercial world. There is, perhaps, no other article so universally diffused over the globe as the Indian gunny bag. All the finer and long-stapled jute is reserved for the export trade, in which it bears a comparatively high price. The short staple serves for the local manufactures and it may be remarked, that a given weight of gunny bag may be purchased at about the same price as a similar weight of raw material leaving no apparent margin for spinning and weaving."

The following table taken from the same work gives an idea of the extent and distribution of the exports of gunny cloth and bags from Calcutta in 1850-51, also exports of raw jute for the same year:—

Exports	Gunnies and	
	Jute	gunny cloth
	*Mds.	Nos.
To United Kingdom	768,945	69,636
To France	13,931	—
To Hamburgh	128	2,180
To North America	9,242	2290,427
To Coast of Coromandel	598	1955,150
To Malabar	—	2054,075
To Penang and Singapore	—	1043,600
To Ceylon	—	357,290
To New South Wales	54	32,125
To Trieste	401	—
To Java	—	242,550
To Pegu	—	672,950
To Mauritius	—	213,980
To Cape of Good Hope	—	82,750
To Guam	—	15,000
To Arabian and Persian Gulfs	—	4,000
<hr/>		
Total	Mds. 793,299	9035,713

Value Rs. 1,970,715 Rs. 2,159,782

The first experiments made with jute by Dundee spinners on their flax

* One maund=82 lbs.

and hemp machinery before the year 1838 were not a success, and in the market quotations of the time—"Warranted free from Indian jute"—became a standing condition of business. It may have been that the earlier parcels were not true jute but some of the more inferior fibres allied to it. However that may be about 1838, fresh trials were made on a parcel of forty tons imported by a sailing ship captain. These trials clearly demonstrated the adaptability and commercial value of the fibre spun by machinery into yarns for common wrappers and packing purposes and resulted in establishing the Dundee jute industry.

Seventeen years later by a singular course of accidents to be described in these articles the first jute spinning mill was erected in India. It may be here remarked that by this time the Dundee mills were successfully competing for the supply of cotton-packing cloth to Bombay.

7933 00
 1586600
 6346400
 1200 1505000 290000
 4680
 1200

CHAPTER II.

The Pioneer Spinning Mill.

Fortunes had already been made by Scotchmen in the spinning and weaving of jute in Dundee prior to 1855. But it was left to an Englishman in that year to introduce jute-spinning machinery to the Hooghly.

Mr. George Acland began life as a midddy. Leaving the East India Marine Service as a young man he turned to commerce in Ceylon, was successful and for some time a non-official member of the Legislative Council there before he thought of fresh fields in Bengal. He arrived in Calcutta about 1853 and got into touch with the management of the paper works, then at Serampore, where experiments were being tried with country grasses and fibre plants to improve the quality or cheapen the manufacture of paper. Acland's genius caught on to reha as a possible rival to flax and hemp. With this in view he secured per-

mission to plant rhea between Bally and Serampore on the sides of the East India Railway track, then under construction.

In 1854 he proceeded home to interview machinery makers, taking with him some rough samples of rhea ribbons. His scheme did not meet with much encouragement, and it was his interview with Mr. John Kerr of the Douglas Foundry then the leading light in the construction of flax and jute preparing machinery in Dundee, that put him on the tract of jute. After inspecting the rhea samples, Kerr said, "Tough gummy stuff like that could never be worked to compete with flax or hemp for twine or cloth. It would be more practical to take jute machinery to Bengal where the jute comes from and spin it there." He accompanied Acland over some of the Dundee jute spinning mills and the interview ended in the placing of orders with Kerr for a few systems of preparing and spinning machinery and getting plans from him for the erection of buildings and driving arrangements.

He returned the same year with his two sons, Charles and Fred, and a few

Dundee mill machanics and overseers the principle being a Mr. Finlay, who brought his two boys with him—one of whom, John, late of the Hastings Mills still survives and pays us an occasional cold-weather visit.

Acland himself superentended the buildings on a piece of land at Rishra (the site of the present Wellington Mills) near Serampore, which he had acquried before proceeding to Europe. The land formed part of the Garden House property at one time owned by Warren Hastings. Here in 1855 the first machine spun jute yarns were made. From this modest beginning, giving an output of 8 tons per day our jute industry has risen, till it now turns out the colossal figure of 2,500 tons daily or over three times as much as Dundee produces.

About 1857 the Aclands introduced a small number of frame hand looms for weaving coarse gunny fabrics to compete with the country hand-made cloth trade. It was left to a later mill however, to initiate the power loom two years later.

When the mutiny broke out at Barrackpore in 1857 Mr. Acland became nervous about the safety of his property and conceived the idea of soliciting the military authorities to provide an armed guard. With this object he despatched his son Charles with one of the mill assistants to put his request before General Hearsey, then in command at Barrackpore. After hearing their message the General said:—"Go back and tell your master there is as much chance of the rebels looting his place as there is of them cutting my throat." The General's assurance was not good enough for Acland. He hired a number of seamen from the Sailors' Home in Calcutta and armed them with muzzle-loading shot guns to guard his property along with the European staff of the mill.

About this time the Aclands extended the mill and formed it into a limited liability company under the name of the "Rishra Twine and Yarn Mills Co. Ltd." with a Mr. Charles Smith as works manager. Mr. Acland during his stay in Dundee had met Smith, who was then working a small mill of his own there. This Mr. Smith is again referred to later on. The Com-

pany had a spell of good fortune but success led to lavish expenditure and it got into serious difficulties about 1867, when the Acland interest ceased. The elder son Charles retired to Kumaon to seek a fortune in tea. His father had returned to England and the younger son had gone to Australia, not too well off, some time previously.

The company was wound up in 1868 and the mill was partially closed down till 1872, when it was re-started and worked with varying success for some years as the "Caluctta Jute Mills Co., Ltd." and later as the "Wellington Jute Mills," till it was ultimately acquired by the Champdany Company who now work it as their branch mill.

The Mill buildings have all been reconstructed since the Aclands' time. But the bungalow in which they lived still stands and is now occupied by the Manager of the present Wellington Mills. The Garden House on the property which was used by Warren Hastings and his beloved Marion has also been preserved and is now used as one of the mill assistants' mess quarters.

**THE BARNAGORE COMPANY AND
THE POWER LOOM.**

In the Mutiny year Mr. George Henderson senior, of the firm of Messrs. George Henderson and Company, while on a visit to Calcutta met the Aclands and there was a chance at one time of his firm undertaking the agency of the Rishra concern. But instead, Henderson persuaded the Borneo Company, for whom his Calcutta firm were agents and who then had a huge amount of idle capital on their hands, to invest a few lacs in the erection of a jute mill. The Borneo Jute Company which was the first of the home registered companies, started work in the beginning of 1859 and to it is due the credit of introducing the power loom for jute cloth, just 50 years ago. Having none of the financial difficulties of the Aclands to contend with, they kept going ahead, doubling their works in 1864 and having cleared their capital twice over by 1872, floated their works into a limited liability company, the present "Barnagore Jute Manufacturing Company Ltd." with 512 looms and a capital considerably over the value of the property. It was the late Mr. Tho-

mas Duff—founder of the firm of Messrs. Thomas Duff and Co., Ltd.—who successfully managed the Borneo Co., in the agents' office during the first 10 years of its existence.

In the cyclone of 1864 the buildings suffered some damage. And amongst other wreckage from Calcutta stranded on the mill compound, the fine East Indiaman "Earl of Clare" was landed high and dry on the bank where the present North Mill Assistants' bungalow now stands. This vessel was moored at one of the further-down buoys and was the first to break loose and she caused most of the subsequent damage to the shipping in the port.

The Company's launch named the "Barnagore" was caught in the storm off Sulkea and sunk. It was, however, raised soon after and had a similar misfortune again off Bally in a milder cyclone three years later. This launch was the first of the small steam craft seen on the Hooghly. It was a paddle boat built by Gourley of Dundee, sent out in sections in 1863, and erected at the mills. It cost £9,000 and was beautifully fitted up with

The Cyclone of 1864.



**"Earl of Clare" ashore on site of present North Mill
assistants' bungalow.**

Barragore.

saloon and small promenade deck. The conditions of trade about 1880 made it an expensive luxury and it was sold to Messrs. M. David and Coy. of Naraingunge, who had it for a good number of years before selling it to the Naṡab of Dacca, who used it as a pleasure yacht up to within a year or two ago.

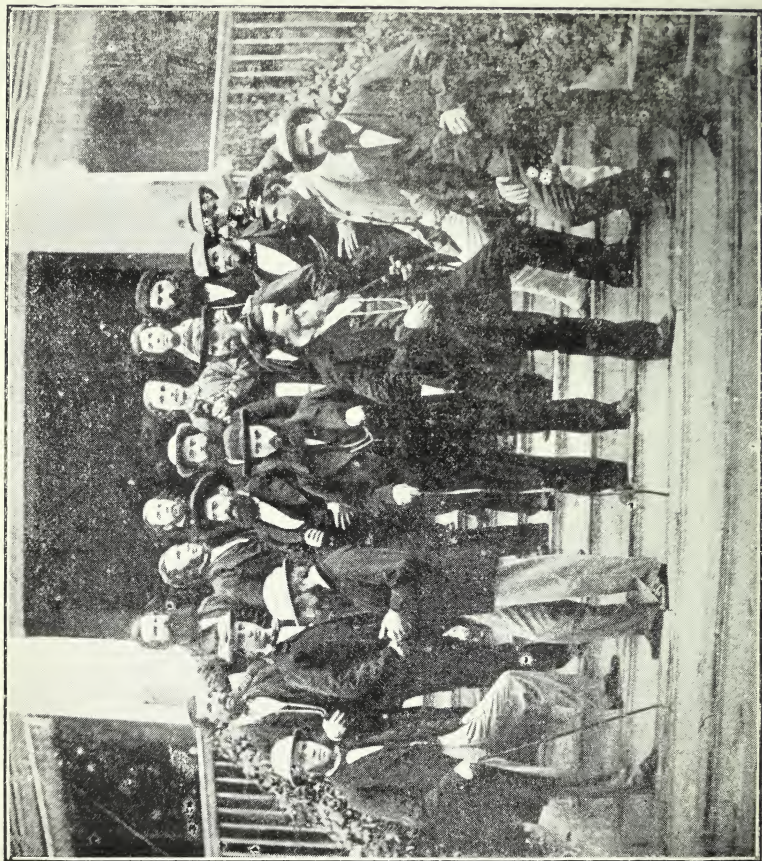
Besides the two mills at Barnagore the Company have now two branch mills. One at Bally recently erected and the other—the Balliaghatta which is referred to later on.

CHAPTER III.

There were giants in those days.

Before proceeding to describe the other companies as they came on the scene, it will be interesting here to glance at the position of the European assistants, the hardy pioneers who nursed the industry and taught the Indians spinning, weaving and the fitting and repairing of machinery. A modern mill of 400 looms employs a staff of eight assistants. The Barnagore Mills in 1862 with 200 power looms and 40 hand looms, employed besides the manager, seventeen assistants. But whereas the modern assistant is more or less of a superintendent, his early compeers had a great deal of the manual work to do as well as to superintend and direct. Among them were tinsmiths, blacksmiths, carpenters and turners and it is not too much to say that the native artisans in the mills to-day owe their skill in a great measure to the train-

Barnagore Mill Staff.



In 1862.

TOP ROW.—J. Alexander, W. Bruce, C. Lickfold, J. Watson, J. Geekie.

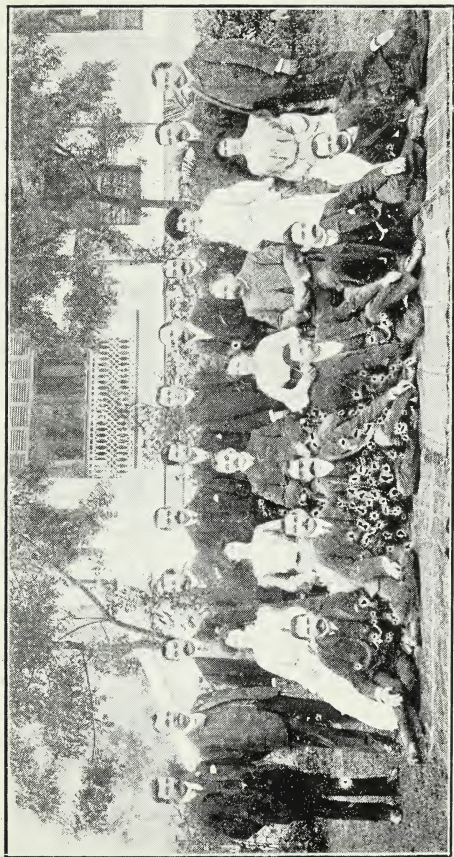
SECOND ROW.—D. Mitchell, A. Brown.

THIRD ROW.—Langlands, P. Matthewson, Vannet, Ramsay, Mathers.

FOURTH ROW.—G. Alexander, D. B. Wallace, A. Stiven.

FIFTH ROW.—H. Knowles, (of the Agents' office.) Visitor, J. Robertson,
J. Brown.

Thomas Duff



GROUP 45 YEARS LATER AT HOWRAH MILL.

ing recieved by their fathers from those early pioneers of the jute trade. Of the Barnagore group of assistants referred to ten were over six feet in height. They were nearly all men who had been drafted when young from country districts to supply the demand for the jute and flax mills in Dundee and other Forfarshire towns. They had none of the luxuries that the modern assistants enjoy but could give them points in physique. Whether "brandy panee" had anything to do with it or not they did enjoy good health. The rupee terms of their engagements were exactly the same as now only the rupee was then worth two shillings, but there was no bonus paid. It is interesting to note that those Barnagore pioneers are represented by sons or grandsons both in the commercial and mill departments of the industry to-day.

The senior partners of the Agents' firm—Messrs. Geo. Henderson and Co.—used to make their residence at Barnagore in a bungalow in the mill compound, and the annual New Year dinner given by them to the assistants was quite an important function. Besides the hosts and mill

assistants, numbering latterly about 25, there would be as many as 30 invited guests. At the last of these annual gatherings in 1874 the hosts were W. L. Alexander, D. G. Landale and James Henderson, and among other noteworthy guests present were the late Mr. Robert Steel, J. Horsburgh Hutchison of Messrs. Toulmin and Co., Robert Harvey of the Bank of Bengal, and other leading merchants.

The mill was honoured in 1870 by a visit from Lord Mayo and a party from Government House including the Duke of Edinburgh, who went up from Calcutta in the company's launch. Mention of Lord Mayo recalls a remarkable instance of bazar information in India. One forenoon in February 1872 a number of native mistries at the India Jute Mills Serampore, waited on the Manager, Mr. Cochrane, to ask him if the bazar report was true that the Lord Sahib had been murdered. Twenty-four hours later the steamer "Dacca" signalled from Saugor the news of the assassination at Port Blair. It appears that intimation reached Madras the day before, but it is a curious fact that the local

bazaars had the news the day before it was made public in Calcutta.

Barnagore had another distinguished visitor in the person of Sir Salar Jung, Prime Minister of the Hyderabad State, in 1874. This distinguished Indian statesman meditated introducing the jute industry into Hyderabad, but he lost power shortly after and nothing ever came of it.

NEW MILLS ERECTED 1860-70.

About the year 1862 the two doctors' mills were floated, the Gouripore and Serajgunge. The principal promoter of the former was Dr. Barrie, some time connected with Messrs. Scott Thomson and Co., in conjunction with a Mr. Smith of the Sugar Refinery, whose property the Gouripore Coy. took over. The founder of the Serajgunge, a home registered company, was a Dr. Macdonnel, who knew something about tea. The buildings of the latter were wrecked in the earthquake of 1897, when the company was wound up and the machinery brought down to Calcutta in 1899 and erected in the Delta Mills.

The Gouripore Company work an up-to-date oil mill in conjunction with

their jute business. The revenue is not shown separately, but the amount of oil material and stocks together with outstandings on oil shipments, aggregating a good round number of lacs in the half yearly accounts, would indicate that the oil department is a remunerative adjunct to the company.

Next comes the India Jute Mills erected on the site of the old paper mill at Serampore in 1866, really promoted by a Mr. Haworth but with capital provided by the partners of Messrs. Mackinnon Mackenzie and Co.

The building on the India Mill compound, known as the "Friend of India House" was for many years occupied by the Marshman family and it was here that Havelock met his future wife, Miss Marshman. The house was considerably altered by the Marshmans and there is a local tradition that the original portion was not unknown to Sir Philip Francis and Madam Grand.

We have now got to five mills with about 950 looms at work. Up to this time there was very little export trade in gunnies beyond Burma. It was not found necessary to be particular about

regularity in weights or count of the two or three qualities of bags in use. The buying and selling was beautifully simple, one rupee per inch of length being the rule for price of D. W. cees and $2\frac{5}{8}$ lbs. twills. But it now became necessary to seek foreign outlets. The Borneo Co. made the first serious attempt about 1868 by shipping 400 bales of their $2\frac{5}{8}$ lbs. twills as $2\frac{1}{2}$ lbs. 3 bushel twill bags to the United Kingdom. The result was disastrous. The bags averaged on arrival anything from 2 lbs. to 3 lbs., the shotting varied from 7 to 10 per inch and the result was a claim of a pound per bale.

The average price of common to good jute in those days ran from Rs. 1-12 to Rs. 3 per maund, the chief supply coming from Serajgunge, supplemented with local Dessai. The jute was not so heavily rooted as now but the mills had not the powerful softeners and improved machinery of to-day and were obliged to cut pretty freely. The cuttings were not utilized but were thrown away with the ashes on the river bank. About 1866, however, Mr. Weskin, an Armenian gentleman with American connections, who lived in what is now Mul-

lick's Garden House adjoining the Rashmonee temples above Barnagore, persuaded the manager of the Borneo Mills to allow him to have the mill's cuttings for the removal of them. Hand-screwed bales of 300 lbs. he shipped to America. The first venture being very successful, he secured other supplies on cheap terms and in a few years cleared enough money to induce him to turn his attention to starting a small jute mill in the compound of his house. But meantime he lost his capital in speculations, and the buildings, up to beam level, of this abortive attempt to start a jute mill are still to be seen at the back of the garden house where he lived.

CHAPTER IV.

New Mills and New Markets.

From 1868 to 1873 the five mills excepting the Rishra Mill simply coined money and brought the total of their looms up to 1250.

To illustrate the prosperity of the industry at this period we may take the dividends paid by the Barnagore Company. On the working of their first half year a 15 per cent interim dividend was declared, which seemed to justify the enormous capital at which the company was taken over from the Borneo Coy., and shares touched 68 per cent premium. The dividend for the first year ending August 1873 was 25 per cent., for 1874 20 per cent and for 1875 10 per cent. Then came a change. The investing public had forgotten the effect of the Port Canning bubble and the condition of the jute industry in 1872-73 seeming to offer a better return than coal or tea, both of which had just

had a bit of boom, it was only necessary to issue a prospectus of a jute mill to have all the shares snapped up in a forenoon.

The Alipore Jail Factory, started in 1870 to make wrapper cloth for opium cases and currency bags, does not count, but in 1872-73 three new companies were floated locally the Fort Gloster, Budge Budge and Seepore; and two Home companies—the Champdany and Samnugger—all of which commenced operations in 1874. In 1874-5 eight other mills were launched—the Howrah, Oriental (now the Union), Asiatic (now the Soorah), Clive, Bengal Pressing and Manufacturing Co. (now the Belliaghatta Barnagore branch mill) Rustomjee (now the Central) the Ganges, registered at Home and the Hastings Mill, owned by Messrs. Birkmyre Bros., of Gourock fame. Thirteen new companies coming on all of a heap and swelling the total looms from 1250 up to 3,500 was more than the soundest industry could stand. Looking back, it is surprising that the mills did not suffer more than they did during the subsequent ten years' struggle for markets. Excepting the ill-fated pioneer

Rishra Mill, the old companies weathered the stress. But four of the new concerns—the Oriental, Asiatic, Bengal Pressing and Manufacturing Co. and the Rustomjee—became moribund to re appear again, however, later on under new names and management. The Fort Gloster also suffered badly.

THE YANKEE INSTINCT.

Some facts and incidents in connection with some of these new companies may not be uninteresting. The first in the field was the Fort Gloster—registered in 1872. The leading spirit in the business was a Mr. Richard Macallister, at one time a 'bus conductor in Philadelphia. He came out to the Tudor Ice Company about 1869 and with Yankee instinct decided to have a hand in the golden pie. The Bowreah Estate with the old cotton mill on it, which dated back to 1818 but which had been silent for a long time, was then going a-begging. Macallister formed a small syndicate and acquired this fine property. They first utilized the old buildings and machinery to float a cotton mill and then launched the jute mill. It began work at the end of 1873 paid a 20 per cent dividend the

first year but for the next twelve years had a very spasmodic career. After being silent for a year or two, when the 100 rupee shares touched Rs. 8, it was restarted about 1888 and has done well ever since. While the Fort Gloster Mill was under construction Macallister floated the Oriental (now the Union) at Sealdah. A range of godowns, relics of the Port Canning scheme, were utilized in the building of the mill. This company, like the Fort Gloster, had a very chequered existence until ultimately taken over by Messrs. Bird and Co. and reconstructed in 1880 under its present name.

Macallister was equally unhappy with his next attempt—the Rustonjee Twine and Canvas Factory, now the Central. The idea was to work a kind of union canvas cloth with flax warp and jute filling. This was another case of many vicissitudes until it came under the management of Messrs. Andrew Yule and Co. with its present name about 1890.

Macallister was a bit of a mechanical genius in his way and his daring sometimes resulted in curious experiments. To give an instance: when the Fort

Gloster Mill first started to make 10 $\frac{3}{4}$ lbs. woolpacks, a large percentage of the packs finished very light in weight. To overcome the difficulty the brilliant idea of making up the weight with sand occurred to him. With the assistance of the mill engineer a mechanical contrivance was rigged up consisting of a hopper fed with fine sand which was run into the mouth of the light packs through a small orifice, into which was inserted a jet of steam to make the sand penetrate the cloth. It is not on record as to whether this device was ever put into practice. But other less ingenious devices for various objects in mill processes have been experimented with in days less remote of which, however, it would be injudicious to say any more.

The Orchard land taken over by Mr. Andrew Yule for the mill at Budge Budge, together with a beautiful villa on the river bank, long known as "Honeymoon Hall" was a favourite holiday and week end resort of Chief Justice Sir Barnes Peacock. This house and the still older Bowreah mansion on the opposite side were to the traveller on the journey up the river the first prominent signs of Euro-

pean life and a welcome relief from the dead flatness of the scenery on the lower reaches.

The Asiatic, now the Soorah, was started by Mr. Charles Smith already referred to in connection with the Aclands. He conceived the idea of sending out second-hand machinery to start a small mill. After leaving the Acland's mill he went into business again at Home and got into difficulties, but being very popular with the spinners in Dundee they gave him what he wanted on easy terms. With this second-hand stock, supplemented by a sprinkling of new machinery, all sent out via the Cape, he started the construction of the mill at Narcoldanga, partly using old buildings on the property. Smith, being an old man, did not wait to see the mill start, but took his profit from the firm of Jews who had financed him in the venture and retired.

The Rustomjee and the Soorah claim the distinction of having been worked for a term of years under native management, the former by a Bombay gentleman named Chunder Ramjee and the latter by a firm of Marwaris.

A SHORT-LIVED EXPERIMENT.

A short-lived experiment started in 1875 was the Bengal Pressing and Manufacturing Co.—now the Balliaghatta. The company took over the old Brunton Pressing Co.'s property at Sealdah which was the second of the hydraulic jute presses, the Naysmiths being the first, but the style of the Brunton press did not prove a success. It was intended to combine jute baling and spinning but the idea was abandoned and the buildings were re-arranged to accommodate machinery for 130 looms by a new company under the present name. It never did any good and was ultimately taken over by the Barnagore Jute Company as their branch mill.

The Champdany, floated at Home in 1872, in its initiation owed much to the late Mr. James Luke, senior, who had been a successful manufacturer in Dundee. But in points of efficiency it was left far behind in up-to-dateness by the other Home company—the Samnugger, floated the following year. This latter concern was promoted by Mr. Thos. Duff who had retired after disposing of the Barking

Mills near London, which he erected and successfully worked after leaving the Borneo Company's service. But like the old war horse, he smelt the battle from afar. In conjunction with the brothers Nicol of A. and J. Nicol and Mr. J. J. Barrie of Dundee, all hard-headed practical men, he floated the Samnugger Company. They were particularly fortunate in their selection of an expert to conduct their business in the Agents Messrs. Schoene Kilburn and Co.'s office. This gentleman Mr. W. Smith had forged his way from office boy in Messrs. Cox Brothers' Lochee to a confidential position with the firm. He was endowed with indomitable assurance and when he came to Calcutta had nothing to learn in the devious ways of jute. Backed by the practical experience and business connections of the Home board in foreign markets, this company did more than all the other companies put together to invade new markets. They proved the ability of the Calcutta mills to compete with Dundee for the 'Frisco hessian wheat bag and the Australian cornsack, woolpack and hessian bran bag demand—all carried by sailing craft. It was significant of

the superiority of their mill and business methods, that while the other mills languished or went to the wall in the years that followed the enormous additions of new mills in 1873-5, the Samnugger Company paid a steady dividend of 10 per cent. per annum, besides building up a huge reserve fund, enabling them to present their shareholders with 40 per cent bonus shares in a baby mill, the Titaghur, floated in 1883, which has grown to rive its father's bonnet. In 1883 the firm of Thos. Duff and Co., Ltd., came into existence and took over the agency.

SPECIALITIES.

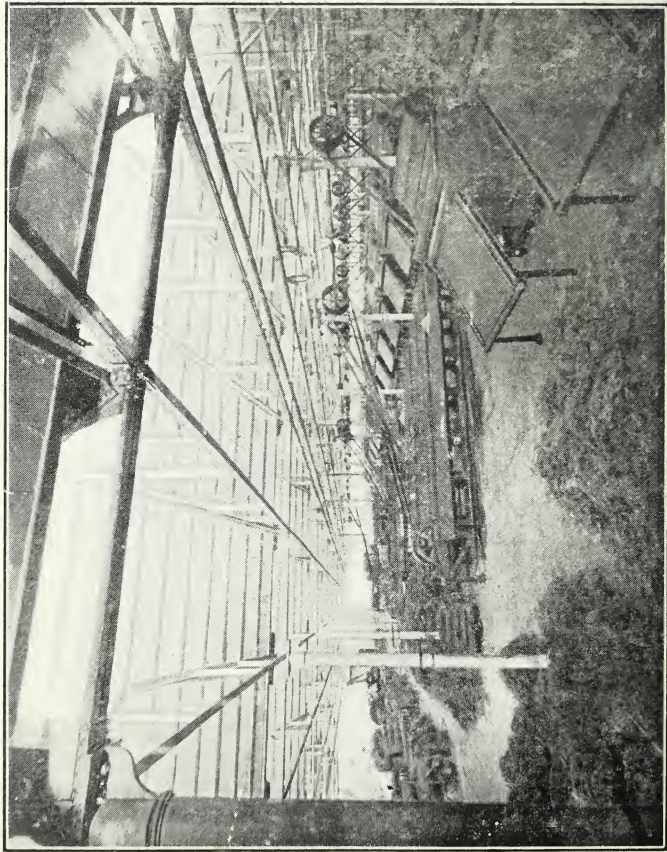
To the Hastings is also due a certain share of individual credit in the opening up of new markets. But their efforts ran more in popularising specialities in stripes and innovations in weights of fabrics for country use. It should, however, be noted that this mill shares the honour with Shamnugar of making the first serious attempts at the manufacture of hessian cloth. Samnugger paved the way, as already noted, to the 'Frisco wheat pocket trade. But the first important contract in hessian cloth burlaps for the

United States was passed by Mr. Montague Massey's firm in 1877 between Messrs. Birkmyre Brothers' Hastings Mills and the American firm, Messrs. Atkinson Tilton and Co., then trading at Calcutta.

Most of the machinery with which the Birkmyres started their mill had been in use in their Gourock factory for some time before it was closed. All the machinery including used stores, bobbins, etc. came out in a sailing ship. When landed on the mill compound at Rishera all mixed up, it looked like a huge scrap heap.

The ground site of the Hastings mills at Rishra forms the southern half of the garden property at one time owned by Warren Hastings and adjoins the land acquired by Acland for the Pioneer Mill. The bungalow on the Hastings Mill compound known as "Hasting's Lodge" did not however exist in Hastings time. The actual villa-retreat of the great pro-counsul in this district as already remarked, is situated on the adjacent land originally acquired by Acland, now the Wellington Mill compound.

In a Modern Mill.



1. SELECTING, BATCHING, SOFTENING & CARDING.

The first electric light experiment was introduced by the Howrah Mills in the latter half of 1881. It consisted of an instalation of 40 Jabla-koff lamps but was discontinued after a few years and it was not until 1895 that the mills generally adopted artificial light.

CHAPTER V.

Origin of the Jute Mills Association.

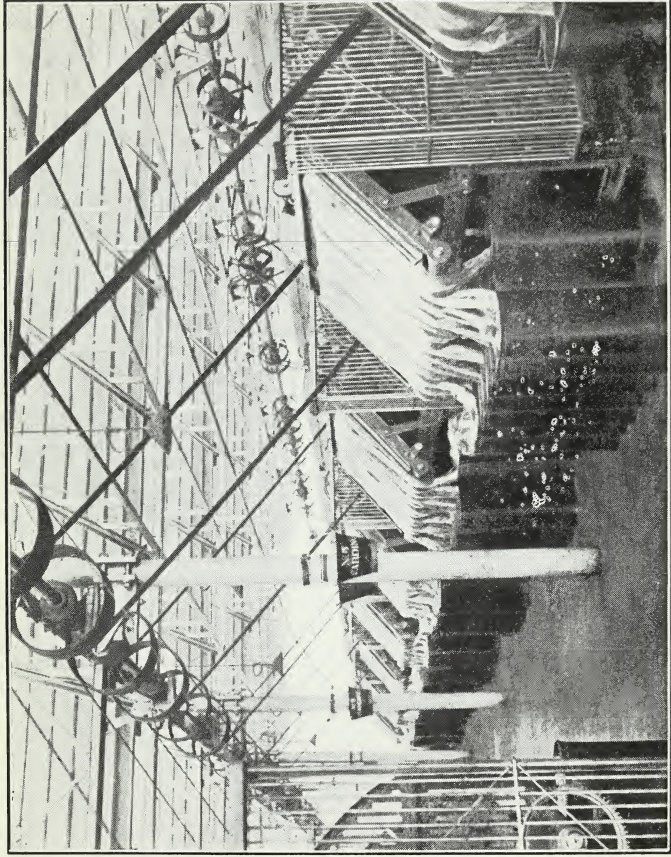
Between 1875 and 1882, there is only one new mill to record. The Kamarhatty promoted by Messrs. Jardine Skinner and Co. came into being in 1877 as the result of Dr. Barry's visit to Calcutta, in 1876, when he transferred the agency of the Goureepore Co. from Messrs. Jardine Skinner and Co. to his own firm. This mill together with additions made by some of the other mills brought the total looms up to 5,150 in 1882. By the end of 1885 the total was further augmented by the Hooghly, Titaghur, Victoria and Kanknarrah Mills, bringing the total looms up to 6,700.

Mention of the Victoria as one of the last four mills referred to, recalls the celebrated land dispute which lasted for about two years between this

In a Modern Mill.



2. BREAKER CARDS.

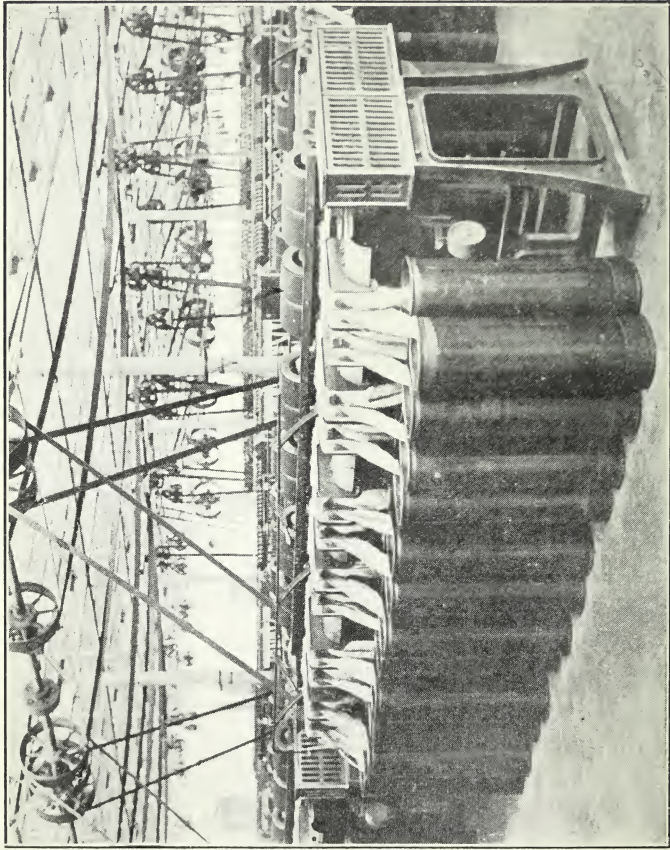


company and the Samnugger. In those days it was considered by the mills a matter of life and death to prevent a rival company settling down in proximity to their labour supply. When the news leaked out that the Victoria Company meditated building on a piece of land on the river bank opposite their works, whence they drew a goodly number of their workers the Samnugger Company acquired or thought they had secured a permanent right to a few scattered patches within the site contemplated for the new mill. As soon as clearing operations on the ground began they entered a suit to prohibit the erection of the buildings. But the manager sent out by the Dundee Board of the Victoria Company, Mr. James Luke, junior (the gentle 'Max') with Galstaunian pluck and obstinacy defied the repeated orders of the lower courts and went on building gaily, till the walls were up to beam level, when an injunction was issued by the District Judge of Hooghly. Further progress was suspended for about a year, when the case was transferred to a Calcutta High Court Bench, who awarded nominal damages as compensation to the Samnugger Company.

THE MILLS COMBINE.

During the years prior to 1884 attempts had been made at intervals to fix selling prices by so-called bona fide agreements. Efforts had also been made from time to time in the direction of curtailing production to assist the markets. But the difficulty of arriving at unanimity rendered these good intentions only partially successful. Hence, in 1884, the question of combination began to take shape. With this object in view an informal meeting held in March of that year in the tiffin room of Messrs. George Henderson and Co.'s office, was arranged by Mr. W. Maitland Herriot, then in charge of the Barnagore Company. The gentlemen who attended representing the mills were J. J. J. Keswick, James Henderson, W. Maitland Herriot, R. Williamson, A. G. Apar, W. B. Colville, William Smith, R. Howard, Geo. Leyall, E. D. Wyllie, R. Turnbull and D. R. Wallace. The feeling at this meeting was strongly in favour of a combination and after two or three subsequent meetings held in the old rooms of the Chamber of Commerce, the Association was duly baptised and held its first formal meet-

In a Modern Mill.



4. DRAWING FRAMES.

ing on November 10th, 1884, under the chairmanship of Mr. J. J. J. Keswick. Despite the want of harmony occasionally when knotty points crop up the Association has been a factor for good to the trade. For the first year after the inauguration of the Association the mills met weekly to fix prices of certain fabrics.

By this time, 1885, the mills had made fair progress in foreign markets. Assisted by a stricter attention to quality they were now getting regular orders for $2\frac{1}{2}$ lbs. twills, flour bags and salts for the United Kingdom. The firm of Messrs. Walter H. Hindley and Co., of London, ably supported by their Calcutta agent, Mr. A. B. Shekelton, was one of the first to recognise the virtues of Calcutta-made goods.

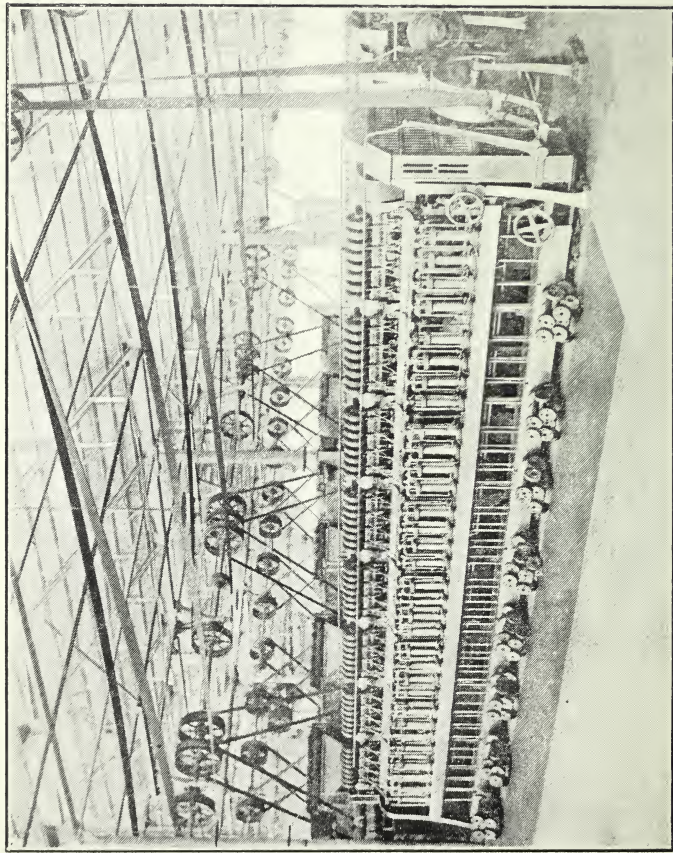
The Egyptian Daira contract had been placed in Calcutta for two or three years in succession and Levant orders for grain sacks and other twill goods were steadily growing in quantity. The whole of the colonial corn-sack supply had been virtually annexed and a handsome share of the woolpack orders as well.

The hessian side of the mills output was still, however, a slow feature in the trade. Wheat pockets, Australian bran bags and Egyptian cotton packs were the principal outlets. These were often made in anticipation of their respective season demands, and it was no uncommon thing for a mill to prepare a stock in advance of wheat packets amounting to 2,000 bales or more. Shipments of burlaps and 90 by 40 cotton packs to the United States were small and the latter disappeared after a few years when the tariff on finished bags was imposed to protect the new sewing shed industries in the States.

HESSIAN PROGRESS.

During the succeeding ten years ending 1894 there were no new mills to chronicle with the exception of the Calcutta Twist Mill with 2,460 spindles, since merged into the Wellington branch of the Champdany Company. Latterly the existing companies gradually increased their looms and improved their hold on foreign markets in sacking goods. But the principal feature was a marked advance in the output of hessians. The United States

In a Modern Mill.



5. ROVING FRAMES.

cloth consumers, having got over their first prejudice against Calcutta manufactures, were the principal supporters of this advance.

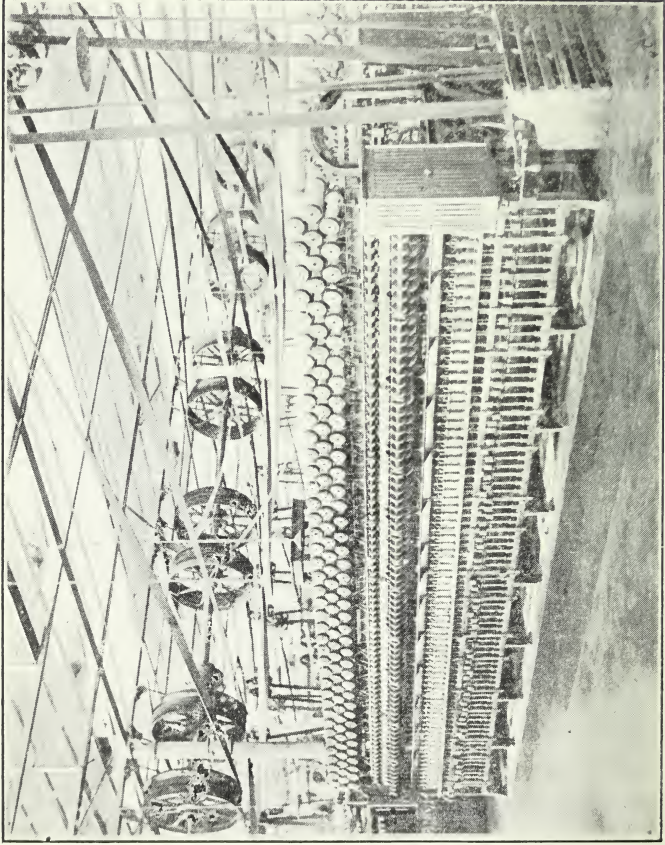
An important outlet for sacking goods which has since assumed large dimensions began in 1889, when Messrs. P. Marsh and Sons through their newly established Calcutta house, took up fair quantities of 40 by 28 Es for the West Coast ports of South America. This was the beginning of the cargoes of 36 by 25 nitrate bags which are now a regular feature in our markets.

But notwithstanding the opening up of new markets the working results of the mills generally continued to be disappointing. The demand was not sufficient to meet the production and under an elaborate voluntary indenture, with Mr. S. E. J. Clarke, Secretary to the Chamber of Commerce, as Trustee, the Associated Mills agreed, with the exception of the Hooghly and Serajgunge, to work shorttime. The first agreement for six months dating from February 15th. 1886, was subsequently renewed at intervals without a break for five years up to February 15th, 1891. The state of the markets

at the time of the renewals dictated the extent of the short time, which varied throughout the five years between 4 days a week, 9 days a fortnight and 5 days a week. Besides short time, 10 per cent. of the sacking looms were shut down for a short period in 1890. An important feature of this agreement was an undertaking by the parties not to increase their spinning power during the currency of the agreement, only a few exceptions being made in the case of incomplete new mills.

In 1890, with a view to further improve the situation the associated mills entered into a compact to fix a scale of minimum selling rates for fabrics used in the country trade, rates for markets west of Suez to be left open. This artificial attempt to improve the mill sale sheets lasted for about 18 months and had a destructive effect on mutual confidence among mills. All sorts of ruses to get round the minimum scale were adopted and recrimination became the order of the day. Certain of the more favoured mills encouraged a system of double-barrelled business, by which they were able

In a Modern Mill.



6. SPINNING FRAME.

to dispose of country goods at the fixed rates in consideration of selling a quantity of foreign goods at buyers' prices. This combined with other wily business dodges eventually burst the compact. The brokers meantime did not escape a share of the blame for carrying out these evasions of the solemn compact and in 1892 the associated mills reduced the rate of brokerage from 1 per cent. to $\frac{1}{2}$ per cent. This, however, on a representation by the brokers headed by their energetic leader, Mr. Edward Delius, was modified within six months and the rate fixed at $\frac{3}{4}$ per cent. the present rate--in consideration of future good behaviour on the part of the brokers. One result of this quarrel was the formation of the Gunny Fabric Brokers' Association.

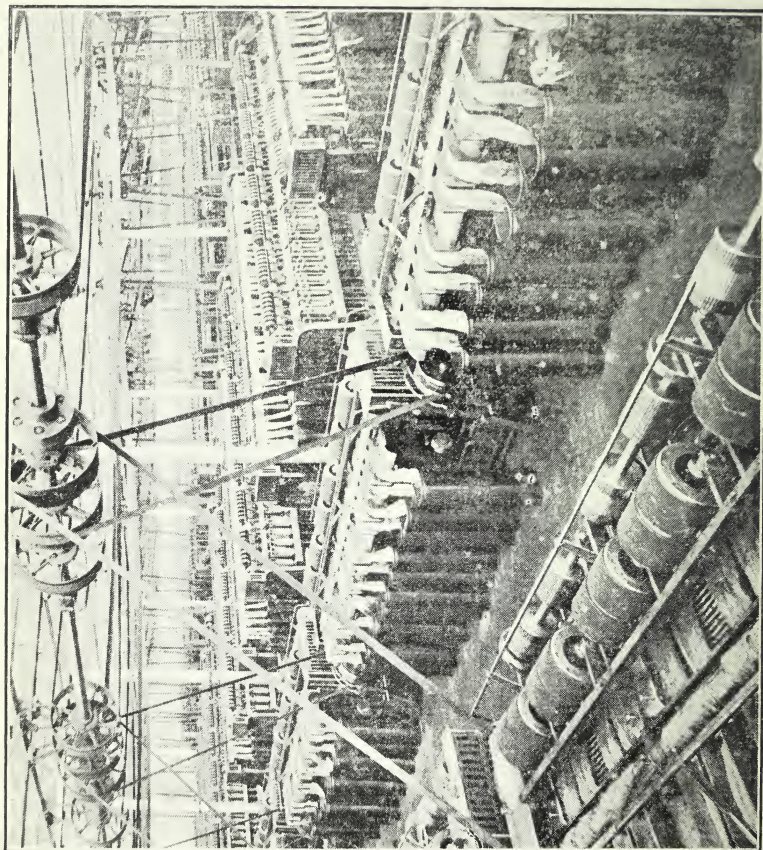
CHAPTER VI.

Latter-Day Prosperity.

In 1892 an unprecedented rise in the price of jute had a very depressing effect on the industry. Four mills were entirely stopped for short periods and nearly all the others worked short time. 1893 was also a poor year. But the jute crop of 1894 turned out a full one and with bumper food and seed crops all over the world a general improvement in the mill industry set in, and it may be here remarked that from this time up to the present although it has not been all plain sailing, the mills have had a comparatively easy course compared with the trials of former years.

It was in this year—1894—that two of the mill managers on the Surrey side conceived the idea of forcing their spinning output in the day time so as to work the looms for an extra hour or two with the aid of small oil lamps or candles. This simple method of forcing production led to the introduction of the electric light and the pre-

In a Modern Mill.



7. GENERAL VIEW PREPARING AND SPINNING.

sent working day of 15 hours. The Hastings Mill did one better than the other mills by working day and night for a number of years, when it was discontinued being found unremunerative. 2

The tendency of the later additions effected by the mills to increase their output was directed towards a larger proportion of hessians. Of the total of 6,700 looms working in 1885 only 1,800 were for hessian. By the end of 1895 there were 3,117 hessian looms out of a total of 9,701. The principal outlet for this increased output of hessian was the United States, and Dundee manufacturers now began to look seriously on the sustained invasion of what they considered one of their chief preserves. No doubt they were feeling the pinch but this did not justify the hysterical utterances and assertions of slavery and so on thrown at the working of the Calcutta mills by members of the Dundee Chamber of Commerce who ought to have known better. They succeeded so far, through their senior member of Parliament, in catching the ear of the then Secretary of State that he ordered an enquiry

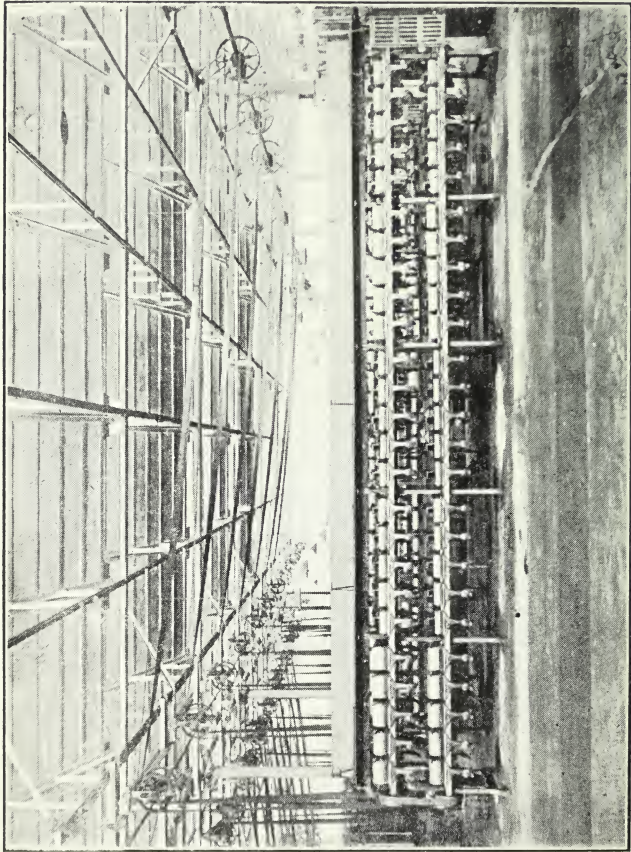
into the working of the Indian jute mills. The latter through their Association had no difficulty in disposing of the ridiculous allegations in their reply to the local Government dated 28th June 1895. In the following cold weather Sir John Long, senior, M.P., for Dundee, at the age of 70, paid a special visit to Calcutta to inform himself on the spot as to the conditions of work in Indian mills. Since then the Calcutta mills have been treated at intervals to nothing more serious than harmless wails from their small competitor on the Tay.

ENORMOUS STRIDES.

We have seen how the twenty-one companies at work in 1885 increased their looms from 6,700 to 9,701 at the end of 1895. But this increase is eclipsed by the enormous strides made since the latter year up to the present jubilee year of the jute power loom in India.

Between 1896 and 1900 the following new mills started work:—the Gordon Twist Mill with 1,800 spindles (now the Fort Gloster branch mill), Khardah, Gondolpara (French-owned), Alliance, Arrathoon, Anglo-India,

In a Modern Mill.



3. WARP WINDING FRAMES.

Standard, National, Delta (which absorbed the Serajgunge) and the Kinnison. A lull of four years witnessed large extensions to the existing mills. After which came the following series of new mills besides further heavy extensions:—The Dalhousie, Alexandria Naihati, Lawrence, Reliance, Belvedere, Auckland, Kelvin and the Northbrook.

This brings us to the present time—38 companies with a loom total of 30,685 of which 17,735 are for hessians, and a total of 6,77,070 spinning spindles employing all told 1,84,110 Indian hands and about 450 European assistants, a total representing the entire population of Dundee, as against a total of 9,701 looms and 2,03,522 spindles employing 57,000 hands and 180 Europeans in 1895.

Since 1896 practically all the mills excepting the Goureepore, Anglo-India and the Alexandria have worked with the electric light. The first named has just introduced it and the other two contemplate following suit.

The most noteworthy of the new markets which have contributed to

keep this enormous increase of spindles going are, first, the South American hessian cloth orders—the first purchases of which in any quantities were made by James Gow and Co. in 1896—and secondly the Cuban sugar bag orders, which appeared about the same time. These two outlets have increased enormously. So also have all the other export markets previously tapped.

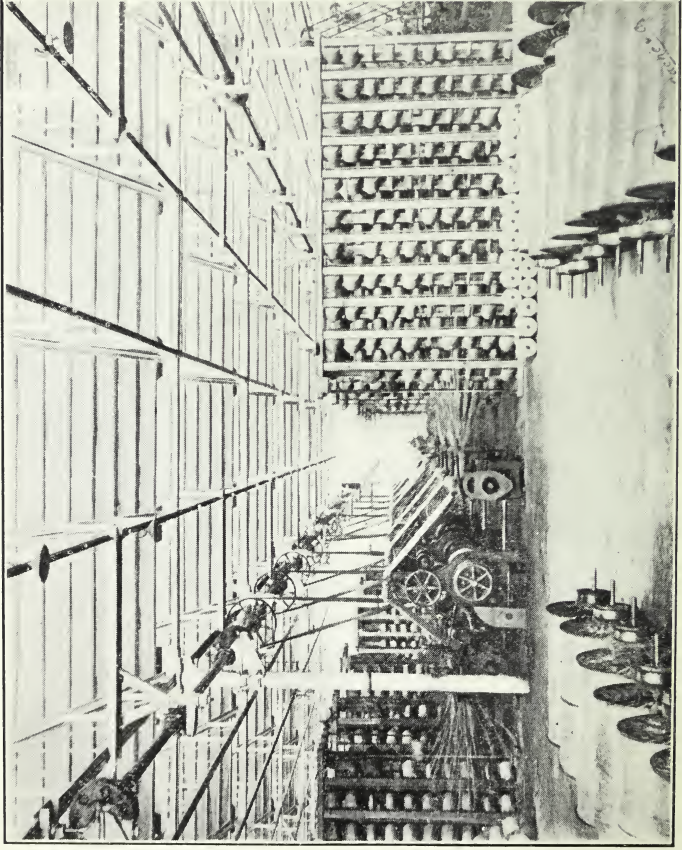
With one or two exceptions all the mills have averaged good profits since 1895 and that practically without having recourse to short time until March last year when it was agreed to work five days a week, which was continued up to the end of September this year.

A tacit agreement fixing the prices of wheat pockets and cotton packs from time to time was arrived at in 1895 and save for slight hitches worked satisfactorily for three years.

EARLY CLOSING.

With the introduction of the electric light, the working day was increased to 15 hours, Saturdays included, which involved an additional amount of cleaning and repairing work

In a Modern Mill.



9. BEAMING MACHINES.

on Sundays. In order to minimise this Sunday work and give them a free Sunday an agitation was got up in 1897 by the Mill European Assistants to have the engines stopped at 2 or 3 p.m. on Saturdays. The local Government took the matter up, but their action went no further than applying moral persuasion backed up with a half-hearted threat. The Mill Association held meetings to consider the question and the members were practically all agreed as to the utility of early closing on Saturdays, but could not trust themselves to carry it out without legislation. Unfortunately the Government of India refused to sanction the provincial authorities passing a resolution under the Factory Act to bring about this much desired condition, and the matter was dropped two years later.

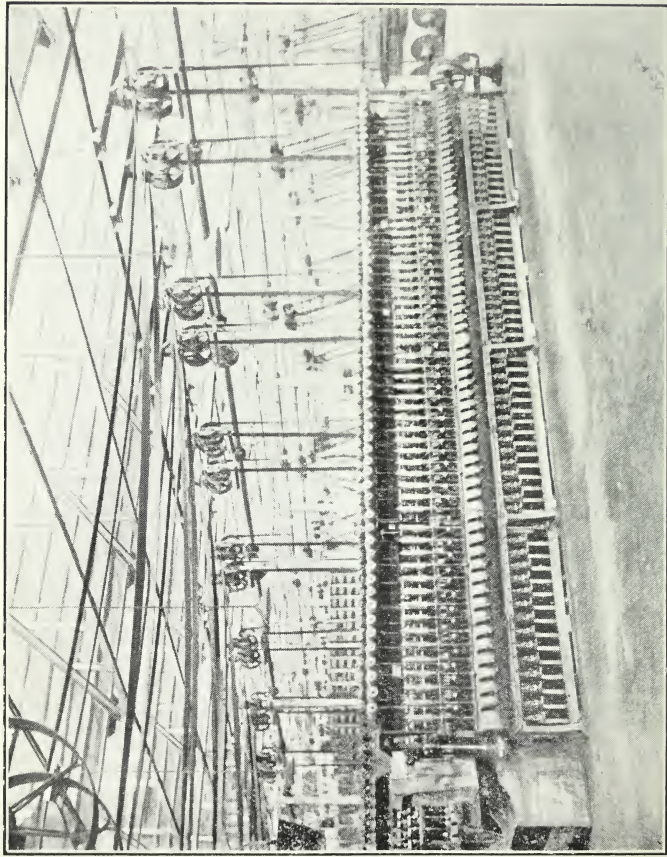
An abortive attempt to fix short time for six months began on 1st April 1899. It lasted two months.

The mills in the neighbourhood and south of Calcutta suffered very severely in 1898-99 from the exodus of labour which took place in consequence of the ill-advised regulations issued by

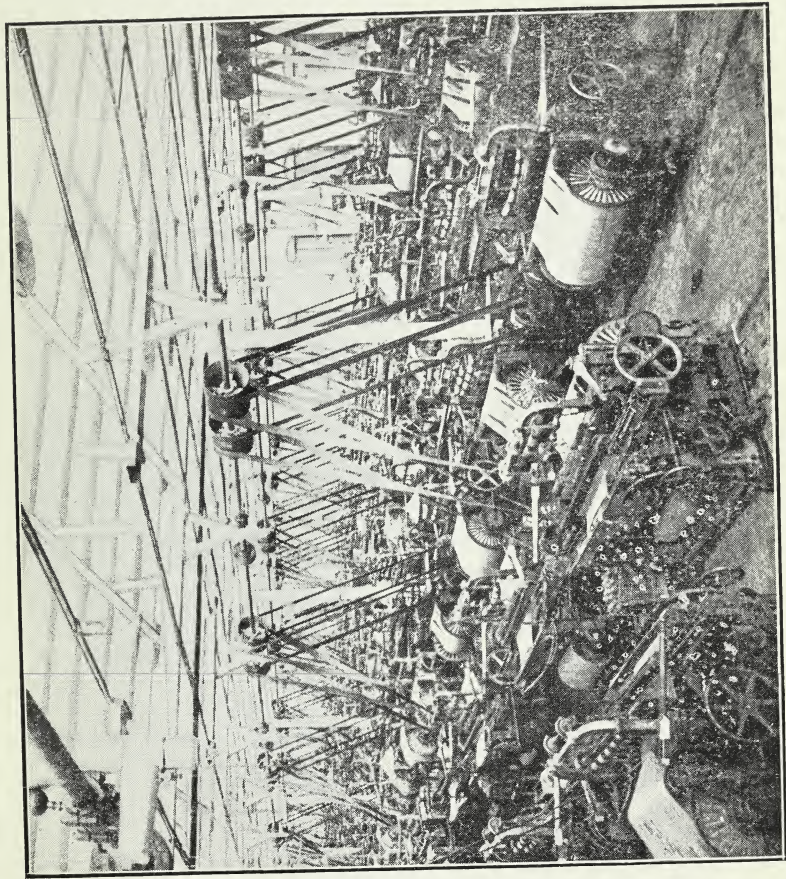
Government at the outbreak of the plague. In some cases over 25 per cent. of the machinery was put out of action for want of hands and profits touched vanishing point.

Having lost sight of the crooked result of the minimum selling rates agreement of 1890-2 the mills during a temporary depression of markets in 1900 again adopted a fixed scale of minimum rates. Just as on the previous occasion referred to, mills vied with each other in artful ways of evading the fixed rates. Modified at intervals, the last revision of this agreement was fixed up to December 1891 but it came to a sudden death in October, when one of the consenting mills to the agreement intimated to the Committee of the Association that the state of their stocks of certain fabrics would necessitate their accepting the best price obtainable irrespective of the fixed rates. This burst up the agreement. The Committee were blamed and had to bear the odium of an impossible legacy imparted to them from the preceding Committee, under the seal of good faith on the part of the signatory mills to the agreement.

In a Modern Mill.



10. WEFT-COP MACHINES.

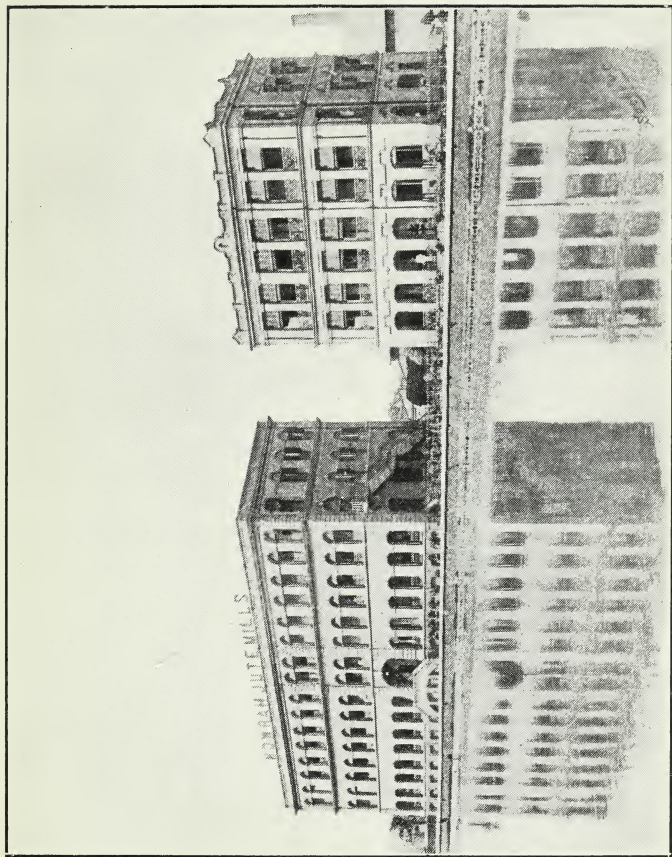


Whatever may be said in favour of holding for prices confined to a monopoly or items of known demand, such as the tacit agreement about wheat pockets referred to—and even it stirred up some dirty liquid—it is much to be hoped for their own sakes that mills will never venture again on a hopeless course, but as necessity arises restrict their production in keeping with demand. What matters it if there should be a dissentient or two? When two stood out it did not deter the others in the five years of short time from 1886 to 1891.

Owing to the unprecedented high rates for jute and to help maintain the rates of manufactured goods, the mills agreed to curtail production by stopping the electric light and worked from daylight to dark for six months from 1st January 1906. This is the only occasion on which the electric light has been stopped since it was introduced.

In 1906 the prospect of legislation to restrict working hours in mills gave an impetus to large extensions at some of the mills. These extensions together with the later new mills aug-

mented production to such an extent that the mills found it expedient to work five days a week. This rate of working commenced from 15th March 1908 and continued up to the end of September this year as already mentioned.



ASSISTANTS' QUARTERS.

MANAGERS.

CHAPTER VII.

Some Present-Day Statistics.

From the following statistics some idea may be gathered of the strength and importance of the industry at the present day.

The loom figures given below do not include the Alipur Jail Mill which according to the supply of labour has 48 or more looms at work, the Chitavalsa, Madras mill 100 looms, the Cawnpore 75 looms, nor the new Ellore Mill 50 looms. The first three have made no progress since they commenced and apparently are not likely to. In the following statistics all these concerns are ignored:—

List of Calcutta Jute Mill Companies with looms working October 1909.

	Name of Company.	Original Mill erected.	Sacking.	Hessian.	Total loom.	Agents, Secretaries or Proprietors.
1	Alexandra	... 1905	108	292	400	Begg Dunlop & Co.
2	Alliance (2 Mills)	... 1897	261	577	838	
3	Anglo India (3 Mills)	... 1897	470	1,230	1,700	Duncan Brothers.
4	Arathoon	... 1898	300	570	870	Arathoon, Ltd.
5	Auckland	... 1908	148	252	490	Bird & Co.
6	Barnagore (2 Mills)	... 1859	819	826	1,645	George Henderson & Co.
	Balliaghatta Branch	... 1875				
	Bally Branch	... 1908				
7	Belvedere	... 1908	100	200	300	Andrew Yule & Co.
8	Budge Budge (2 Mills)	... 1874	410	372	782	
9	Central	... 1875	300	279	579	
10	Champdany	... 1873	208	272	480	Finlay Muir & Co.
	Wellington Branch	... 1855	154	146	300	
11	Clive	... 1875	472	396	868	Bird & Co.
12	Dalhousie	... 1905	128	302	430	
13	Delta	... 1899	400	170	570	Andrew Yule & Co.
14	Fort Gloster (2 Mills)	... 1873	600	300	900	Kettlewell Bullen & Co.
	Jagatdal Branch	... 1895				
15	Ganges (2 Mills)	... 1875	474	491	965	MacNeill & Co.
16	Gondolpara	... 1895	170	160	330	Gillanders Arbuthnot & Co.

17	Gourepore (2 Mills)	... 1862	316	939	1,255	Barry & Co.
18	Hastings	... 1875	367	378	745	Birkmyre Bros.
19	Hooghly Upper Mill	... 1883	287	168	455	Gillanders Arbuthnot & Co.
	Lower Mill	... 1897	375	275	650	
20	Howrah (3 Mills)	... 1874	490	810	1,300	Ernsthausen Limited,
21	Indra (2 Mills)	... 1866	450	550	1,000	Mackinnon Mackenzie & Co.
22	Kamarbatty (2 Mills)	... 1877	467	360	827	Jaidine Skinner & Co.
23	Kankuarrah (2 Mills)	... 1884	362	988	1,350	
24	Kelvin	... 1908	150	250	400	McLeod & Co.
25	Khardah (2 Mills)	... 1895	480	863	1,343	Anderson Wright & Co.
26	Kinnison	... 1897	374	306	680	F. W. Heilgers & Co.
27	Lawrence	... 1907	208	224	432	Bird & Co.
28	Naihati	... 1907	185	209	394	F. W. Heilgers & Co.
29	National	... 1900	330	271	601	Andrew Yule & Co.
30	Northbrook	... 1908	160	352	512	Bird & Co.
31	Reliance	... 1908	120	330	450	Ernsthausen, Limited.
32	Samnugger (2 Mills)	... 1874	354	589	943	Thos. Duff & Co., Ltd.
33	Seebpore (2 Mills)	... 1874	300	600	900	Ernsthausen, Limited.
34	Soorah	... 1874	155	....	155	McLeod & Co.
35	Standard	... 1896	278	362	640	Bird & Co.
36	Tittaghur (2 Mills)	... 1884	591	1,127	1,718	Thos. Duff & Co., Ltd.
37	Union	... 1874	251	274	525	Bird & Co.
38	Victoria (2 Mills)	... 1884	378	675	1,053	Thos. Duff & Co., Ltd.
			<hr/>	<hr/>	<hr/>	
			12,950	17,735	30,685	
			<hr/>	<hr/>	<hr/>	

Statement of Looms at Different Periods.

	Sacking.	Hessian.	Total.
June 1859			192
„ 1869			950
„ 1873			1,250
April 1877	2,948	910	3,858
Aug. 1873			3,858
Aug. 1873			4,572
Nov. 1883			5,376
May 1884			5,691
Dec. 1885	4,900	1,800	6,700
Jan. 1887			7,200
„ 1890	5,359	2,300	7,659
June 1892			8,195
March 1895			9,536
Dec. 1895	6,584	3,117	9,701
March 1897	7,478	5,506	12,984
Jan. 1901	8,613	6,600	15,213
„ 1902	8,316	8,201	16,517
„ 1903	8,747	8,727	17,474
„ 1904	9,227	10,551	19,778
„ 1905	9,786	11,409	21,195
„ 1906	10,805	12,756	23,561
„ 1907	11,891	14,785	26,676
„ 1908	12,539	16,432	28,971
„ 1909	12,950	17,735	30,685

The present total production of all fabries.

In length exceeds ... 4,450 miles daily
And in weight,, ... 2,550 tons ,,

**Total amount of share Capital
and Debentures** invested in the mills
amounts to over Rs. 14,88,00,000 :—

Statement of Exports of Gunny Bags and Cloth.

		1885	1890	1895
Country Ports	...	8,24,88,000	8,42,75,000	9,72,63,000
Foreign Ports	...	5,50,23,000	8,65,51,000	23,98,52,000
		1900	1905	1908
Country Ports	...	11,12,72,000	10,21,47,000	11,43,72,000
Foreign Ports	...	46,14,36,000	75,50,45,000	97,14,70,000

The increase in foreign exports at the different periods is largely made up of Hessian Cloth.
The country consumption of Cloth forms a very small percentage of the total.

Statement showing the proportionate values of the Foreign exports and Country consumption for the year ended March 1909.

Total value of the production of the Mills at the average prices ruling during the year	...	...	Rs. 18,34,98000
Total value of Foreign Exports of bags and cloth taken from the Annual Statement of sea borne trade for the year	...	Rs. 15,61,22,000.	
Deduct 12 per cent. for freight and charges	...	Rs. 1,87,34,000.	
F. O. B. value of Exports	...	...	Rs. 13,73,88000
Country consumption including Burma representing one-fourth of the total	...	...	Rs. 4,61,10,000

Exports of Jute Rejections and Cuttings to all Places.

	1880-81	1884-85	1889-90	1894-95
United Kingdom	12,95,000	17,06,500	20,72,000	18,74,000
Foreign Europe	59,000	1,48,500	4,74,000	11,13,000
America	3,30,000	5,07,000	5,51,000	5,97,500
Indian Coast and other Ports	19,000	18,000	10,000	18,500
	<hr/>	<hr/>	<hr/>	<hr/>
Growth of Calcutta Mills consumption for same years:—	17,03,000	23,80,000	31,07,000	36,03,000
	8,90,000	11,35,000	14,98,000	16,78,000

	1899-1900	1904-05	1908-09
United Kingdom	12,52,000	14,38,000	15,49,000
Foreign Europe	8,96,000	15,43,000	20,24,500
America	4,43,000	5,31,000	9,31,500
Indian Coast and other Ports	9,000	13,000	19,000
	<hr/>	<hr/>	<hr/>
Growth of Calcutta Mills consumption for same years:—	26,00,000	35,25,000	45,24,000
	22,48,000	30,77,000	35,93,000*

* Mills worked five days per week.

**Comparative Statement of Jute
consumed in Dundee, the Continent
and Calcutta Mills.**

	Consumption in bales		
	1881	present.	Increase.
Dundee	10,00,000	12,00,000	2,00,000
Continent	3,50,000	23,00,000	19,50,000
Calcutta Mills. }	8,90,000	40,00,000	31,10,000

It will be seen that the Calcutta mills have more than held their own in the race, and shareholders with the exception of the few unfortunate concerns have had a fair average return for their money. So long as Bengal can afford to export over forty lacs of bales of the raw material there would appear to be a good future for the Calcutta Mills. But there is no getting away from the fact that the large extensions and new mills of recent years are not so much the natural effect of an increasing demand for jute fabrics but rather the outcome of a desire on the part of managing agents to increase their emoluments.

During the past eighteen months, mills have been feeling the effects of the unnatural boom of two years ago in the markets for their goods, and the position was only saved by restricting, as stated, the working week to five days from March 1908 to September 1909. At the moment there appears to be a better outlook for country goods but the foreign demand is less hopeful. The decrease in the jute crop acreage, if not a serious matter just yet, may be a feature to be reckoned with in the near future. The acreage figures for the past five years are as follows:—

1905	31,28,300
1906	34,82,900
1907	39,74,300
1908	28,56,700
1909	27,32,700

The new Factories Bill is however a hopeful feature in the situation, if it should result in compelling the mills to toe the line to a fixed working day of

10 or 12 hours. Although some of the mill agencies look upon it as a piece of unnecessary interference with the working of mills.

Working as at present a fifteen hour day with relays of hands, the number of hands employed by the Calcutta Mills works out at six hands per loom as against two per loom in Dundee. To work a shorter day with a single shift, of adults and two squads of children, with an interval of one and a half hours at midday, the necessary working complement of hands would still be three per loom more than in Dundee. This would enable the workers to relieve each other at frequent intervals and so reduce the actual hours of adult work in a working day of say twelve hours to not more than 10 hours.

This change of working would result in a saving of wages equal to the added cost per ton on the standing charges in the shorter day and still enable the Calcutta mills to manufacture Hessians at forty to fifty rupees per ton cheaper than the Dundee Mills.

As regards the restriction of working hours contemplated in the Bill it may not from a shareholder's point of view be out of place to quote the effect of a change from a long day worked by shifts to a ten hour day worked by a single shift as recorded in two working reports to shareholders in 1879-80. In the first report dated August 1879 we read:—

“An arrangement was entered into by us with two neighbouring mills to shorten the working time from 13 to 14 hours per day with shifts of hands, to 10 hours with a single shift. The change has resulted beneficially in the working of your mills.”

and in report dated February 1880:—

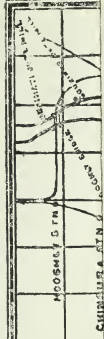
“The production of the mill during the past half year has been very satisfactory, the discontinuance of the system of working with shifts of

hands having resulted in a larger output per hour."

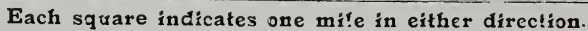
Despite the attitude of certain agencies the new Bill when it becomes law will most probably prove to be a blessing for many years to come.

The Jute Mills of Calcutta.

RIVER HOOGHLY.
FROM HOOGHLY TO ULABARIA



RIVER HOOGHLY.
FROM HOOGHLY TO ULABARIA
SHOWING JUTE MILLS
1909.





29

mesa

UNIVERSITY OF ILLINOIS-URBANA



3 0112 049733576